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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,426	03/25/2004	Masachika Arai		9787

7590 10/27/2004  
MASACHIKA ARAO  
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EXAMINER

RIDDLE, KYLE M

ART UNIT PAPER NUMBER

3748

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/810,426	<b>Applicant(s)</b> ARAO, MASACHIKA	
	<b>Examiner</b> Kyle M. Riddle	<b>Art Unit</b> 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03252004</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Drawings*

1. The drawings filed on 25 March 2004 are acceptable subject to correction of the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," PTO-948. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

### *Specification*

2. The use of the trademark HARLEY DAVIDSON has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

3. The disclosure is objected to because of the following informalities:

- Page 5, line 2, "chamber s" should read --chamber's--;
- Page 5, 3<sup>rd</sup> line from the bottom, "is limited is limited" should read --is limited--;
- Page 5, 2<sup>nd</sup> line from the bottom, "plush" should read --push--;
- Page 6, line 1, "24and" should read --24 and--;
- Page 6, 2<sup>nd</sup> to last paragraph, line 2 of the paragraph, "36and" should read --36 and--;
- Page 6, 2<sup>nd</sup> to last paragraph, line 5 of the paragraph, "22and" should read --22 and--.

Appropriate correction is required.

### *Claim Objections*

4. In claim 1, the use of the trademark HARLEY DAVIDSON has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Additionally, a preamble to a claim is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self contained description of the structure not depending for completeness upon the introductory clause, clearly the claims of record do not rely on the introductory clause for completeness. See *Kropa v. Robie, supra* at 480. See also *Ex parte Mott*, 190 USPQ 311, 313 (PTO Bd. of App. 1975).

5. Claim 2 recites the limitation "the standard Harley Davidson rocker arm" in claim 2, 2<sup>nd</sup> to last line of the claim. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 3 recites the limitation "the standard Harley Davidson" in claim 3, last line of the claim. There is insufficient antecedent basis for this limitation in the claim.

7. Claims are objected to because of the following informalities:

- Claim 2, line 2 of the claim, "plush" should read --push--;
- Claim 4, line 4 of the claim, "and a pair of intake valve ports with seats" should be deleted since the phrase is repeated previously.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-4 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited. Specifically, all sub-paragraphs of the claims end with periods and are not one sentence only.

10. Claim 2 contains the trademark/trade name Harley Davidson. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a particular rocker arm and, accordingly, the identification/description is indefinite.

Art Unit: 3748

11. Claim 3 contains the trademark/trade name Harley Davidson. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe intake and exhaust port configurations and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Regueiro (U.S. Patent 5,682,849).

Regueiro discloses a valve operating system comprising:

- a cylinder head assembly 12 having a pair of exhaust valve ports 46, 47 with seats and a pair of intake valve ports 44, 45 for each cylinder (column 5, lines 49-57 and Figure 1), pushrod 200 in linear arrangement with camshaft 56 (column 11, lines 60-65), and a spark plug centrally located between the valve ports (column 6, lines 17-18);

Art Unit: 3748

- a pair of exhaust valves 32, 34 and a pair of intake valves 28, 30 disposed radially or angularly about the cylinder head 12 contiguous with the appropriate ports 44, 45, 46, 47 for introducing a combustible mixture of fuel and air on the suction stroke and relieving the combustion gases on the exhaust stroke (column 5, lines 41-66);

- a plurality of rocker arms 66, 68, 70 supported by shaft 162 and rocker arm shaft 144 (column 9, lines 18-29);

- a plurality of valve springs 97 surrounding the valve stems of the intake valves 28, 30 and exhaust valves 32, 34 and biasing the valves toward the closed position (column 8, lines 10-13);

- the pushrod 200 drivingly communicating between the camshaft 56 and rocker arm 68 for actuation of the engine valves (column 11, lines 59-65).

Re claim 1, Regueiro discloses a yoke or crosshead bridges 106, 108 providing equal valve actuation of the intake valves 28, 30 and exhaust valves 32, 34 (column 9, lines 42-52).

Re claim 2, Regueiro discloses the use of standard rocker arms 66, 68, 70 located in standard positions of the cylinder head 12 (column 9, lines 18-29 and Figures 2 and 3).

Re claim 3, Regueiro discloses standard exterior faces of the intake ports 44, 45 and exhaust ports 46, 47 (column 5, lines 49-57 and Figure 1).

Re claim 4, Regueiro discloses standard lifters or tappets 58, 60, 62, 64 in the standard engine location for lash adjustment and transmitting the actuation of the rocker arms to the exhaust valves 32, 34 and intake valves 28, 30 (column 7, lines 39-67 with column 8, lines 1-9, and Figures 2 and 3).

### ***Conclusion***

14. The IDS (PTO-1449) filed on 25 March 2004 has been considered. An initialized copy is attached hereto.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of 6 patents.

- Osaki et al. (U.S. Patent 4,527,518) disclose a single overhead camshaft engine with angled valve stems, two pairs of exhaust and intake valves, and a centrally located spark plug.

- Ichida et al. (U.S. Patent 4,739,735) disclose an engine with angled valve stems, centrally located spark plug, two pairs of intake and exhaust valves, and rocker arms.

- Regueiro (U.S. Patent 5,638,783) discloses a valve train similar to the one cited above.

- Regueiro (U.S. Patent 5,645,023) discloses a valve train similar to the one cited above.

- Hayashi et al. (U.S. Patent 6,363,903) disclose two intake and exhaust ports with a centrally located spark plug and rocker arms.

- Fukuzawa et al. (U.S. Patent 6,705,269) disclose an engine with angled valve stems, centrally located spark plug, two pairs of intake and exhaust valves, pushrods, and rocker arms.

### ***Communication***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle M. Riddle whose telephone number is (703) 306-3409, and effective 22 November 2004 will be (571) 272-4864. The examiner can normally be reached on M-F (07:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859 effective 22 November 2004.



Art Unit: 3748

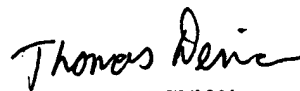
The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kyle M. Riddle  
Examiner  
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